REMARKS

Claim 1 has been amended to include the limitations of claims 2, 6 and 7. Claims 2, 6 and 7 have been canceled. Entry of these amendments is respectfully requested. The amendments do not raise new issues or require a further search because each of claims 6 and 7 has received a complete action on the merits as evidenced by the references in the Final Action to these claims (see page 3, lines 2-3 from the bottom of the page, and page 5, lines 13-14). The limitation originally recited in claim 2 and now incorporated into claim 1, i.e., that the thickness of the paperboard structure is 1 to 5 mm, was considered in the first Action to be anticipated by JP 07-251004, relied upon by the Office in the 35 U.S.C. § 103(a) rejections in the present Final Action and discussed below, and thus has also received full consideration.

Claims 1-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 07-251004 ("JP '004") in view of any of Dressler (U.S. Patent No. 4,347,104), Soon-Jai (U.S. Patent No. 5,736,009), or JP 11-117185. Claims 11-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '004 in view of any of Dressler, Soon-Jai, or JP 11-117185, and further in view of Yamamoto et al., U.S. Patent No. 6,061,011 ("Yamamoto").

The rejections based on proposed modification of JP '004 are

not proper because JP '004 specifically teaches against the proposed modification and the proposed modification of JP '004 will destroy the invention on which JP '004 is based.

The invention of JP '004 is a material for gas phase adsorption and liquid adsorption which contains 10 weight % or more of activated carbon fiber. Paragraph [0008] of JP '004 teaches: "[a]nd it is required to contain the activated carbon fiber 10weight [sic] % or more." JP '004 cannot be properly modified by reducing the wt % of the activated carbon fiber to the range of 0.08 to 3 wt % required by claims 1-19 (now claims 1, 3-5 and 8-19) of the present application because such modification will destroy the invention of JP '004. *See Ex parte Hartmann*, 186 USPQ 366 (BdPatApp&Int 1974) ("More importantly however, Reynolds cannot properly be combined with Graham et al. relative to the employment of continuous monofilaments, since to do so would destroy that on which the invention of Graham et al. is based, namely, the use of very short fibers").

Moreover, the invention of each of Dressler, Soon-Jai, and JP 11-117185 is unrelated to the invention of JP '004 and there is no motive or other reason for a person of ordinary skill in the art to have looked to any of Dressler, Soon-Jai, and JP 11-117185 to modify the adsoption material of JP '004 as proposed in the Action.

Regarding modification of the material of JP '004 to obtain the sheet material for a radio wave absorber and of the radio wave absorber of the present invention, none of JP '004, Dressler, Soon-Jai, and JP 11-117185 are related to radio wave absorbers and there is no motive or reason to modify the adsorption material of JP '004 as required to obtain the claimed sheet material for a radio wave absorber and radio wave absorber.

As noted above, JP '004 relates to an absorption element containing an activated carbon fiber of 10 wt % or more for performing gas phase absorption and liquid phase absorption.

On the other hand, the invention of Dressler relates to moisture-insensitive electrically-conductive paper and there is no disclosure of the property and effect of radio wave absorption. As a practical example, Dressler discloses only one example of a paper containing electroconductive fiber of 15 wt %. The invention of Dressler requires a significantly greater quantity of electroconductive fiber than the amount of electroconductive fiber prescribed in claim 1 of the present application in order to exclusively constitute an electrically-conductive paper.

The invention of Soon-Jai relates to germicidal packing paper with electroconductivity and there is no disclosure relating to the feature and effect of radio wave absorption. While Soon-Jai

describes that carbon fiber staple is contained at an amount of 1 to 5 wt %, acrylic fiber staple is an important pre-requisite (column 3, line 50 - column 4, line 3). As described in column 3, lines 13 - 21, the acrylic fiber staple is used to impart electroconductivity. Considering this, Soon-Jai also requires a greater amount of fiber than the present invention.

The invention of JP '185 relates to sheet for printing and printed matter and, while effects of static electricity neutralization and of electromagnetic wave shield are disclosed, there is no disclosure of the property and effect of the radio wave absorption. Considering the objectives of static electricity neutralization and electromagnetic wave shield, JP '185 would also have been considered to use a significantly larger quantity of electroconductive fiber than the present invention. For example, the mixture quantity of electroconductive fiber described in the Examples is 40 wt %.

As explained above, each of the newly cited three documents differs in use from the "radio wave absorber" of the present invention and, because of the use, practically needs a larger quantity of electroconductive fiber than the present invention. Due to the use of a large quantity of electroconductive fiber, radio wave is reflected and no radio wave absorption would have

been possible (paragraph [0071] of the description of the present application).

According to the present invention, by providing a mixture ratio of electroconductive fiber as defined in claim 1, a balance between radio wave loss caused by the contact of electroconductive fibers with each other in a way to let current flow through the whole medium and radio wave loss by the induction of current in an electroconductive fiber existing alone is optimized, which allows the performance of radio wave absorption to be more effectively exhibited (paragraph [0060] of the description of the present application). Accordingly, even if JP '004 is combined with any of Dressler, Soon-Jai or JP '185, the present invention will not be obtained.

Furthermore, each of Dressler, Soon-Jai and JP '185 fails to disclose that a radio wave absorber is structured of a corrugated board sheet and the effect thereof. In JP '004, while the take up ratio of the corrugated medium to the liner of a paperboard structure is 1.2 to 2, there is no disclosure to constitute a radio wave absorber by using a corrugated sheet of 1 to 5 mm in thickness.

According to the present invention, by making a corrugated sheet structure having a take up ratio of the corrugated medium to

the liner of a paperboard structure of 1.2 to 2, excellent radio wave absorption can be exhibited (paragraph [0074] of the description of the present application). In this regard, there is no disclosure in any of the cited references.

With regard to claim 4, while the Office suggests that the property of claim 4 would be dependent on the amount of the electroconductive fibers, there is a misunderstanding.

The ratio (y/p) of electric conductivity (y) measured in the orthogonal direction to the measurement direction which shows maximum electric conductivity to maximum electric conductivity (p) is controlled by optimizing production conditions during sheet production and is not a design matter attributable to mixture ratio. In a general production method of a paper, the fibers are apt to stand in parallel lines in the longitudinal direction of the paper and accordingly electric conductivity tends to be high in that direction.

If the above-mentioned ratio of electric conductivity (y/p) is smaller than 0.35, polarization dependence becomes large, whereby absorbing ability differs according to the direction of an electric field vibration face of the incident radio wave and a stable performance cannot be attained (paragraphs [0069]-[0070] of the description of the present application). On the other hand, if it

is larger than 0.95, the fiber orientation becomes excessively arbitrary, the longitudinal strength of the mixed paper lowers largely, often provoking paper cut during the paperboard manufacturing (paragraph [0069]). There is no disclosure relating to the matters mentioned above in any of cited references.

Claims 11-19 are dependent on claim 1. Claim 1 is patentable fo the reasons explained above. Accordingly, claims 11-19 are also patentable.

Claims 1-19 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Murase et al., U.S. Patent No. 6,407,693 ("Murase") in view of any of Dressler, Soon-Jai, or JP 11-117185.

The invention of Murase relates to a radio wave absorber. Although there is disclosure in Murase that by using a plane plate thin material such as a non-combustible board, a foamed polystyrol or corrugated board and the like, a radio wave absorber can be formed, Murase does not disclose the particular effects obtainable as a result of making a corrugated board structure, and does not disclose anything concerning the take up ratio of the corrugated medium to the liner of a paperboard structure as in amended claim 1 of the present application or other characteristics of the paperboard structure.

Also, as explained above, none of Dressler, Soon-Jai or JP '185 discloses a radio wave absorber structure of corrugated board sheet and the effects thereof. In particular, there is no disclosure concerning the take up ratio of the corrugated medium to the liner of a paperboard structure also in Murase.

The present invention is characterized in that a radio wave absorber is structured of a corrugated board sheet, and in particular, is characterized in that by adopting a sheet material of paperboard structure having a take up ratio of the corrugated medium to the liner of a paperboard structure of 1.2 to 2, an excellent radio wave absorbing ability can be exhibited (paragraph [0074] of the description of the present application). In this regard, there is no disclosure in any of cited references.

Accordingly, even if Murase is combined with any of Dressler, Soon-Jai or JP '185, the present invention cannot be obtained.

Moreover, the Office has not shown by proper reasoning or evidence that the proposed modification of Murase according to the teachings of any of the secondary references would not have adversely affected the desired properties of the radio wave absorbent structure of Murase. The broad statement in the Final Action that the amount of conductive fibers controls the degree of absorbing in the radio wave absorber is not supported and does not

support any specific modification of the radio wave absorbent structure of Murase and, particularly, the modification necessary to obtain the sheet material for a radio wave absorber and the radio wave absorber of the present invention.

Removal of the 35 U.S.C. § 103(a) rejections of the claims and a notice of allowability are believed to be in order and are respectfully requested.

The foregoing is believed to be a complete and proper response to the Office Action dated April 3, 2009.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,
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